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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/690,073 | 10/21/2003 | Tokihiro Shimura | 4230-101 | 6700 |

23448 7590 06/14/2006

INTELLECTUAL PROPERTY / TECHNOLOGY LAW
PO BOX 14329
RESEARCH TRIANGLE PARK, NC 27709

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| EXAMINER |
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MARCHESCHI, MICHAEL A

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| ART UNIT | PAPER NUMBER |
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1755

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary

Application No.

10/690,073

Applicant(s)

SHIMURA, TOKIHIRO

Examiner

Michael A. Marcheschi

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 12-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 4/3/06.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1755

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/06 has been entered.

All of the previous art rejections are withdrawn in view of the IDS filed 4/3/06, since the art cited is more comprehensive to the instant claims.

All of the previous new matter rejections are withdrawn because, after further review of the amended limitations of 9/23/05, said amendments better constitute a scope of enablement issue.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 and 23-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an abrasive comprising at least one of boron, aluminum and titanium **in the amounts defined in the specification and original claims** (see pages 10, 13

Art Unit: 1755

and table 1 and claims 5 and 7), does not reasonably provide enablement for an abrasive comprising at least one of boron, aluminum and titanium **in any and all amounts** as defined by the amended claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

Although the specification states that these components can be present, these components **are present in defined amounts**. Since the amended claims do not define the amount of these components, they are broader in scope than the disclosure. The claim amendment implies that any and all amounts for these components can be used which is not the case according to the specification. Any recitation of these components in the specification and the original claims is **always** accompanied by a range, thus applicants amended claims, that do not define any amounts, are not consistent with the original disclosure. Such a limited disclosure does not support the breadth of the instant claims.

Claims 1-11 and 23-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the proviso “when the powder contains titanium in the absence boron and aluminum, the powder further contains silicon in an amount of **0.8 wt.%**” (see table 1, comparison example 5) does not reasonably provide enablement for the proviso as defined in the independent claims (i.e. when the powder contains titanium in the absence boron and aluminum, the powder further contains silicon in an amount of **at least 0.7 wt.%**”. The specification does not enable any person skilled in the art to which it pertains, or with which it is

Art Unit: 1755

most nearly connected, to make and/or use the invention commensurate in scope with these claims.

Although the specification in the table implies a proviso, the only example meeting a powder that contains titanium in the absence of boron and aluminum is comparison 5, and in this comparison, the amount of silicon is 0.8%, thus the specification only enables the claimed proviso with 0.8 wt% silicon and not at least 0.7 wt%, as claimed. In addition, the amount of silicon defined in the tables range from 0.7-1.4%, thus the amount of “at least 0.7 wt.%”, as claimed, is not enabled by the specification. Such a limited disclosure does not support the breadth of the instant claims.

For the purpose of the instant art rejection, the examiner interprets “composed of” to mean “consisting essentially of”

Claims 1-11 and 23-24 are rejected under 35 U.S.C. 103(a) as obvious over Bergkvist et al. (873) in view of Achikita et al.

Bergkvist et al. (873) teaches in the abstract, column 2, lines 30-53 and the claims, a composition based on a material (powder) which comprises stainless steel having a chromium content of 10-30% (claimed amount). The reference does not make any mention of boron or aluminum (titanium can be present in an amount of 0-2% and silicon can be present in an amount of 0.7-1%) in the stainless steel, thus it can be presumed that these are not present absent any evidence to the contrary. The amount of silicon in the presence of titanium thus meets the claimed proviso.

Achikita et al. teaches in column 4, lines 34-35 that powders generally have the claimed size.

With respect to the abrasive limitation, applicants are claiming a “material” which the intended use does not carry any weight to the composition (see **In re Thuau 57 USPQ 324 (CCPA 1942)**). Any material possesses a property such that it may be used for a purpose. In addition, irrespective of what the material is called, the composition and is the same, thus no distinction is seen to exist. The primary reference teaches a stainless steel powder having the claimed amount of chromium (powder used according to instant claims 6-7) and although all of the claimed characteristics are not literally defined, these characteristics are expected and therefore obvious because the material is the same (stainless steel with the claimed amount of chromium) and the same material is expected to yield the same results (i.e. claimed characteristics) **in the absence of any evidence showing the contrary**. It is the examiners position that since the steel is the same (made up of the same components), the properties of this material will also be the same (the same material is expected to have the same properties) and thus burden is upon applicants to show otherwise. With respect to the size, the reference defines this as powder and the broad interpretation of a powder encompasses sizes within the claimed range because the claimed sizes are known powder sizes, as shown by the secondary reference. In view of this, the limitations of claims 1-8 are met. With respect to claims 23-24, applicants use process limitation to define the product (claim 24 defines an abrasive **manufactured** by...) and as is well known "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964. Assuming arguendo about claim 24, no patentable distinction is seen with respect to the abrasive irrespective of how it is

Art Unit: 1755

formed and what apparatus is used to form it. The material claim is not patentably distinguishable by way of the apparatus used, absent evidence.

With respect to claims 9-11, the primary reference teaches that stearic acid (amount defined) and silicon oxide flow agents (amounts defined) can be included in the composition and it is the examiners position that when these materials are mixed with the steel powder, they will coat the powder to an extent (i.e. they will be in contact with the surface of the powder and this broadly reads on attached to the surface) absent evidence to the contrary. Assuming argundo about the "composed of" language of the instant invention, the examiner interprets "composed of" to mean "consisting essentially of" and applicants must show evidence that the additional materials will materially effect the basic and novel properties of the instant invention.

Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Although new rejections have been made, the examiner will comment on any arguments pertinent to the 35 U.S.C. 112, first paragraph rejection. Before responding to any arguments, the examiner would like to point out that he is aware of the law and statute and has not conjoured the rejections out of thin air, as stated by applicants. In addition, the examiner rejections are proper and thus the statements are not ludicrous, as stated by applicants. Applicant has **not** shown any instance that defines the claimed proviso in its entirety and defines the use any and all amounts of boron, aluminum and titanium. In fact, **any** recitation of aluminum and titanium is **always** accompanied by a range of at most 0.1% (page 13, lines 16+ of the specification defines reasons for this) and any recitation of boron is **always** accompanied by a range of at most 1.5%

Art Unit: 1755

(page 10, line 15 of the specification defines reasons for this). The examiner is unclear as to how these minimal amounts would envision a claim that does not define any amounts. With respect to the proviso, the examiner is unclear as to how comparison 5, which defines titanium in the absence of boron and aluminum (first part of the proviso) envisions the second part of the proviso (i.e. amount of silicon at least 0.7%) especially since the amount of silicon for comparison 5 is defined as being 0.8%. Although multiple examples can be used to support a range (upper and lower limit), applicants are not merely claiming a range, but a proviso and it is that proviso, as a whole, that must be supported by the specification. The only example that supports the claimed proviso (in terms of the components used) is comparison 5 but the amount of silicon is only 0.8%. The other examples do not support the proviso in terms of the components, thus the examiner is unclear as to how these other examples can be used to support a silicon range if they are not defined in terms of the proviso claimed. Assuming any further arguendo, the examples do not support the broad range of silicon (no upper limit) because the amount of silicon is a definite range, as is apparent from the examples, and this is the only place in the specification that defines silicon.

To support the arguments, applicant states that the claims are to be given the broadest reasonable interpretation that is consistent with the specification. The examiner is well aware of this and that limitations and the examples in the specification do not generally limit what is covered by the claimed, however, absent of a range in the claims would have one to look for the specification for guidance. In every instance that teaches aluminum, boron and titanium in the specification said teachings are associated with an amount, thus how does this provide reasonable support for any and all amounts of these components. In view of this, the claims are

Art Unit: 1755

inconsistent with the teachings of the specification. The legal authority to limit the amounts of aluminum, boron and titanium is that the specification only defines these components in specific amounts (the specification never broadly defines these components absent amounts). It is clear that **any amendments** added **must be clearly supported** by the specification and the examiner is unclear as to how specific amount provides the necessary support for any and all amount of aluminum, boron and titanium. Applicant fails to show how the specification clearly supports the amended claims. Any added subject matter during prosecution **must be** clearly supported by the specification, as filed. With respect to the proviso situation, applicant argues that the examiner is attempting to limit the claims to the specific examples. The examiner is not doing this, to the contrary, the examiner held this as new matter because the specification never defines this proviso in a single passage or example. The only place that the proviso might be supported is in the examples. Looking to the examples for support, the only example that defines “titanium in the absence of aluminum and boron” is example 5 (which is a comparative example). This example clearly established that the amount of Si is only 0.8 %. Since the specification, as filed, does not clearly establish the claimed proviso, it is new matter. Applicant apparently states that the examiner has conjured the reasoning out of thin air. To the contrary, it is well established that any added subject matter to the claims must be clearly supported by the specification, as originally filed. The examiner cannot find any instance in the specification that clearly defines the added subject matter, in its broad sense. Applicant continues to state that the examiner is limiting the claims to the specific examples. As defined above, the examiner is not limiting the claims but rather defining that no support in the original specification can be found for the added

Art Unit: 1755

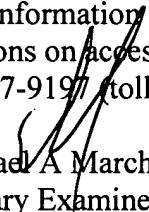
subject matter. Since applicant has not shown where clear support can be found, no further comment is deemed necessary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/06
MM


Michael A Marcheschi
Primary Examiner
Art Unit 1755